

19990330.ba v02_n482.bam.990330

>From ???@??? Wed Mar 31 09:01:11 1999
Message-Id: <199903302324.RAA02640@sco.theporch.com>
Date: Tue, 30 Mar 1999 17:23:36 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2482

BOATANCHORS Digest 2482

Topics covered in this issue include:

- 1) Re: hocus? inrush current limiter
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 2) RE: TEK 561
by "Steve" <scb@loki.internettport.net>
- 3) FS Emergency Mil Radio
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
- 4) 30S-1 script emblem
by Sandra L Knepper <slkst29+@pitt.edu>
- 5) Echophone EX107 anyone?
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 6) FS litterature
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
- 7) Gem converter not pawnable
by mnhopkins@juno.com
- 8) DX-100 audio problem.
by W4UOC@aol.com
- 9) Re: hocus? inrush current limiter (fwd)
by "Roberta J. Barmore" <rbarmore@indy.net>
- 10) Re: hocus? inrush current limiter (fwd)
by Avery Comarow <acomarow@usnews.com>
- 11) Info
by "Ronnie Hull" <w5sum@ms1.nwla.com>
- 12) Attention: RW Douglas
by N5CM@aol.com
- 13) Re: hocus? inrush current limiter (fwd)
by Arden Allen <gumbear@pacbell.net>
- 14) Re: Emergency Mil Radios
by John Shriver <jas@shiva.com>
- 15) Re: Which is it, HQ-129 speaker or HQ-120 speaker?
by Nick England <nick@cs.unc.edu>
- 16) Emergency Mil Radios
by Roy Morgan <roy.morgan@nist.gov>
- 17) (no subject)
by Roy Morgan <roy.morgan@nist.gov>
- 18) Measuring sensitivity

- by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
19) Re: Scope Question Please
by Steve Berg <z931086@corn.cso.niu.edu>
20) Re: hocus? inrush current limiter (fwd)
by Steve Berg <z931086@corn.cso.niu.edu>
21) WTD: Info on 3D23 and Supreme AF-100
by John Poulton <jp@cs.unc.edu>
22) Re: Measuring sensitivity
by "Mike B. Feher" <n4fs@monmouth.com>
23) WTB pair 810 tubes
by John Russo <jprusso@acsu.buffalo.edu>
24) HBR-16
by Don <71333.144@compuserve.com>

Date: Tue, 30 Mar 1999 00:25:50 -0500
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
Message-Id: <199903300525.AAA28435@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: hocus? inrush current limiter

right you are on the absence of inrush limiters in the MC30 & 60.

Have examples of each here... the warm-up characteristic of the 5U4s
did the inrush limiting

M

Message-Id: <199903300713.BAA19984@loki.internettport.net>
From: "Steve" <scb@loki.internettport.net>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 30 Mar 1999 00:57:13 +0000
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Subject: RE: TEK 561
CC: "Old Tube Radios" <boatanchors@theporch.com>

Hi Ed;

Thank you for your most useful response.
Great advice, applicable to most any 'scope. I'm filing this letter!

The major prob is trace intensity jumps around spontaneously, but
never out of range of the panel control & focus doesn't change.
Powering off & on usually restores normal intensity. Got no idea at

present what this could be. Any suggestions? BTW; no docs here.

The other probs are a broken shaft coupler on one 3A1 sensitivity variopot and an open sweep variopot in the 3B3 timebase, both probably unobtainium. 'Course those are optionals & it will work just fine without them. Be nice to fix it tho'. Only downside seems to be choice of exotic E55L tubes for the vert dynode drivers, hate to have to find those, or the front-end nuvistors used in both plug-ins. Any observations, recommendations or suggestions appreciated.

Regards; Steve

Message-ID: <013101be7a99\$4ac71aa0\$0a00a8c0@cyber>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS Emergency Mil Radio
Date: Tue, 30 Mar 1999 12:24:20 +0200
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 8bit
Content-Transfer-Encoding: 8bit

British " SABRE " Pilot's survival radio for sale. 40 dollars + shipping.

73 Rag OZ8RO

Date: Tue, 30 Mar 1999 06:09:50 -0500 (EST)
From: Sandra L Knepper <slkst29+@pitt.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: collins@qth.com
Subject: 30S-1 script emblem
Message-ID: <Pine.GS0.3.96L.990330060431.2439E-1000000@unixs1.cis.pitt.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

The 30S-1 script reproduction for the door of the 30S-1 has now been received and shipped.

This project can now be "put to bed."

See my homepage: <http://www.pixi.com/~jenkins/collins/>

Again, for inquiring minds: Sandy is my daughter who has the E-mail account.

Dave, W3ST

Date: Tue, 30 Mar 1999 08:24:09 -0500
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
Message-Id: <199903301324.IAA28631@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Echophone EX107 anyone?

Maybe this is the only post-WW2 tombstone?

It's a 5-band slide rule thing with an RF stage. Dial looks like that of a Halli S47.

Understand it's in Dachis which I don't own.

Anybody out there have one?

Thanks,

Marty

Message-ID: <008e01be7ab3\$d7ce2aa0\$0a00a8c0@cyber>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS litterature
Date: Tue, 30 Mar 1999 15:46:03 +0200
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Philips

1. Pocketbook Electron tubes 1966-67
2. and 1959
3. Interchangeability Guide for Electron tubes 1967

Each 10 dollars + postage

4. Replica/reprint of pre-war booklet : Telefunken Rohren fur den Rundfunk

48 pages in German, describing the old R-series (RE, RS)

5. Die 1939 Telefunken Weltempfänger 56 pages in German describing
the various models with specs. contains also price list for spare
tubes

Each 15 dollars + postage

73 Rag oz8ro

From: mnhopkins@juno.com
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 30 Mar 1999 08:03:19 -0600
Subject: Gem converter not pawnable
Message-ID: <19990330.080322.-314025.1.MNHopkins@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit

Turning up a Gem VHF converter is, like Hinny Youngman used to say, good news and bad.

The good news is that the thing seems to have been advertised but once, in the July, 1964 edition of 73 Magazine (but a Wayne Green list says July 1963). Whichever, it must be rare. I cannot find either magazine, probably because my sons take them to look at the pictures of women, but my notes say the one just located has to be a 2MC-N for 2M with outputs from 6 to 14 mc, or a 6MC-N for 6M with outputs from BCB to 20M. Those were the only 4-Nuvistor models, but a 2MC-X had a Nuvistor with a 6U8 for outputs 6-60 mc.

The bad news is that a Gem, or any old converter, won't be welcome at the pawnbroker's. Converters go for about \$5, or the value, used, of the crystal Clare's did not have.

As a '64 model, it was one of the last and thus its low outputs may have doomed it. By then, what Ed Tilton called the "single dial" receivers were reforming converter IFs up to 10M from the traditional 14 mc. Of course the SSB transceiver was killing them off, too, so old GEM never had a chance.

That is too bad. These old converters recall a time when hams were building stations one piece at a time and it is likely that someone, somewhere, really thought a handfull of Nuvistors were a good idea on 6M.

Inspection will probably show a pair in cascode, a mixer and an oscillator. The clear tendency is for 6M converters to be overly hot because they are adopted from 2M converters as a rule.

If I had it, I would put in a 36 mc crystal and see what it would show me around 20M. Of course one could also convert it to solid state, as many Ameco CN-50s were treated, but I cannot say that here.

Finally, there was another Gem converter: The Little Gem, seen in CQ for October, 1959, at page 123, used a 6J6 and a pair of 6AQ5s on a 3X4X5 inch chassis. It was \$29.50 from Gem Electronics in Springfield, Ohio.

de ab5L, Michael Hopkins, Box 226841, Dallas, TX 75222,
MNHopkins@JUNO.com
Student of Tecraft, ICM, and Six Meters' golden age, 1956-58.

From: W4UOC@aol.com
Message-ID: <dc9ca899.3700db95@aol.com>
Date: Tue, 30 Mar 1999 09:11:33 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: DX-100 audio problem.
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I have restored an original Heathkit DX-100 but have one remaining problem. As I increase the audio gain control from 0 to about 3 or 4 on a scale of 0-10, the audio increases and gets to an acceptable level but as I increase the gain control beyond 4 it quickly starts to decrease as indicated on the modulation meter and scope.

It really is not a problem as the audio from all reports and as indicated on the scope is quite good....however I can not understand why it quickly decreases as I increase the control above 4 out of ten on the control.

The audio gain pot is .5 Megohm across the pot as the schematic calls for and the wiper indicates a smooth variation from 0 ohms to .5 Megohms. All other resistances and voltages check closely with the schematic and voltage charts.

I recapped the three 2-mfd at 50 volt cathode by pass caps on the first two audio stages. The two .2 mfd at 400 check ok with a cap tester but I have not replaced them as I did not have replacement caps.

Any thoughts?

Tom Koch - W4UOC
Atlanta, GA

Date: Tue, 30 Mar 1999 09:32:31 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: hocus? inrush current limiter (fwd)
Message-ID: <Pine.SUN.3.96.990330093024.17624A-100000@indy1>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi!

Marty's right about the older Mac amps with tube rectifiers. The tube hi-fi folks are especially fond of indirectly-heated rectifiers (the number of their favorite one escapes me), which heat up even more gradually.

...But there's inrush, and inrush, and what these tubes buy is a slower initial charge of the filter condensers; and that's the same reason Mac used thermistors on their SS-rectified amps.

The (relatively) high current drawn by a transformer when you first turn it on is another thing, and in most cases is a minor issue. Dunno as I'd call trying to prevent it "hokum," as anything that will prolong the life of old gear with difficult-to-replace iron is probably a good idea, but it is worthwhile to think about what's going on there. There's a bit of a current spike, not a voltage spike. Might tend to make the windings want to shift a bit, but it will not, in and of itself, make the insulation break down (it's voltage that does that trick).

You *can* get a bit of a voltage spike when you *break* the circuit, and for dealing with that, an R/C "snubber" across the switch or an MOV across the primary can be helpful.

The Genuinely Careful power supply would incorporate a current-limiting thermistor in series with the primary, an MOV across the primary, an R/C snubber on the power switch, a husky series resistor (50R/10W in a 100mA/400V job) between the rectifier and capacitor-input filter, and a decent bleeder resistor. If I had to pick which to give up first, I'd drop the thermistor, especially if the supply used a tube rectifier. Not because the thing is snake oil--it's not--but because the initial current is self-limiting: inductors oppose such rapid changes and the faster the current tries to ramp up, the faster the magnetic field builds up to slow it down, and *most* small transformers will take it.

...Still, transformer design and construction is an inexact art. There are some real fragile examples out there that will benefit from any help we can give 'em. Note, too, my use of the term "small" above: really

big iron gets step-started, not so much to keep it from blowing up as to keep the breakers from popping and the lights from dimming when power is first applied. For those, there's no thermistor made that'll do the job; pure brute-force power resistors with a relay to short them out after a few cycles of AC have zoomed in and set the core to singing are the order of the day.

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Message-Id: <2.2.32.19990330144931.00d64410@ntpop.usnews.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Tue, 30 Mar 1999 09:49:31 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Avery Comarow <acomarow@usnews.com>
Subject: Re: hocus? inrush current limiter (fwd)
Cc: boatanchors@theporch.com

Bobbi, I really appreciate the way you sort these things out. Some of us with limited (or no) technical background beyond what we've managed to pick up osmotically from this and that book and magazine need your kind of readable tutorial. There's a helpful, clear explanation that's always fun to read, and then the pot of gold at the end of the rainbow: a bottom line.

I know you've taken flak from a few members for your posts. I don't even remember what for. Please, please don't pay attention. People like me need people like you to keep us informed and relatively sane.

Gratefully, Avery W40GK

At 09:32 AM 3/30/99 -0500, you wrote:

>
>Hi!
>
> Marty's right about the older Mac amps with tube rectifiers. The tube
>hi-fi folks are especially fond of indirectly-heated rectifiers (the
>number of their favorite one escapes me), which heat up even more
>gradually.
>
> ...But there's inrush, and inrush, and what these tubes buy is a slower
>initial charge of the filter condensers; and that's the same reason Mac
>used thermistors on their SS-rectified amps.

>
> The (relatively) high current drawn by a transformer when you first
>turn it on is another thing, and in most cases is a minor issue. Dunno as
>I'd call trying to prevent it "hokum," as anything that will prolong the
>life of old gear with difficult-to-replace iron is probably a good idea,
>but it is worthwhile to think about what's going on there. There's a bit
>of a current spike, not a voltage spike. Might tend to make the windings
>want to shift a bit, but it will not, in and of itself, make the
>insulation break down (it's voltage that does that trick).
> You *can* get a bit of a voltage spike when you *break* the circuit,
>and for dealing with that, an R/C "snubber" across the switch or an MOV
>across the primary can be helpful.
>
> The Genuinely Careful power supply would incorporate a current-limiting
>thermistor in series with the primary, an MOV across the primary, an R/C
>snubber on the power switch, a husky series resistor (50R/10W in a
>100mA/400V job) between the rectifier and capacitor-input filter, and a
>decent bleeder resistor. If I had to pick which to give up first, I'd
>drop the thermistor, especially if the supply used a tube rectifier. Not
>because the thing is snake oil--it's not--but because the intital current
>is self-limiting: inductors oppose such rapid changes and the faster the
>current tries to ramp up, the faster the magnetic field builds up to slow
>it down, and *most* small transformers will take it.
>
> ...Still, transformer design and construction is an inexact art. There
>are some real fragile examples out there that will benefit from any help
>we can give 'em. Note, too, my use of the term "small" above: really
>*big* iron gets step-started, not so much to keep it from blowing up as to
>keep the breakers from popping and the lights from dimming when power is
>first applied. For those, there's no thermistor made that'll do the job;
>pure brute-force power resistors with a relay to short them out after a
>few cycles of AC have zoomed in and set the core to singing are the order
>of the day.
>
> 73,
> --Bobbi
>
>KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
> FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
> Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys
>
>

Message-Id: <199903301518.JAA10639@ms1.nwla.com>
From: "Ronnie Hull" <w5sum@ms1.nwla.com>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 30 Mar 1999 09:25:11 +0000

MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Subject: Info

howdy men
can anyone out there give me some information on a
Kenyan Choke, P/N S502487? manufacturers date code is
04/74

thanks

Ronnie

W5SUM
Ronnie Hull
PO Box 8941 - Shreveport, La - 71148
"In the Occupied South"
Ten-Ten #2019 AMI # 1057

From: N5CM@aol.com
Message-ID: <1ff6b912.3700ec45@aol.com>
Date: Tue, 30 Mar 1999 10:22:45 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: Attention: RW Douglas
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

Hi Kent,

I printed out your message and apparently deleted it on the
"confuser" so don't have your E-Mail address on the printout.

I located the manual and will send it priority mail for an additional
buck.

73, Ken....N5CM....

Date: Tue, 30 Mar 1999 07:35:37 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: hocus? inrush current limiter (fwd)
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0F9E00HZFZAK2Z@mta3.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi Bobbi;

There's a couple of things that should also be considered:

>There's a bit
> of a current spike, not a voltage spike.

Yes. The primary current surge is due to the *reflected* load of the filter input capacitor charging from zero charge. The capacitor appears as a short circuit for the first few cycles, the limiting factor being the transformer primary and secondary winding resistances.

>Might tend to make the windings
> want to shift a bit, but it will not, in and of itself, make the
> insulation break down (it's voltage that does that trick).

This is an erroneous concern in my opinion. If the windings of a transformer are not mechanically stabilized by proper construction and impregnation they will move to and fro with each AC cycle due to electromagnetic attraction/repulsion and eventually fail. Expansion and contraction of windings due to heating and cooling continues to have its deleterious on transformer life.....what can you do about that?

> You *can* get a bit of a voltage spike when you *break* the circuit,
> and for dealing with that, an R/C "snubber" across the switch or an MOV
> across the primary can be helpful.

The small arc you do get is due to the energy stored in the very small leakage (uncoupled) inductance in the primary, the loading of the secondary absorbing the effect of the instantaneous current change in the primary.

>the initial current
> is self-limiting: inductors oppose such rapid changes and the faster the
> current tries to ramp up, the faster the magnetic field builds up to slow
> it down,

You are referring to inductive reactance which is of secondary (pun intended) concern in coupled inductors.....what goes on in the coupled (secondary) is reflected back to the coupling (primary) inductor. Remember, a transformer transfers energy magnetically between coupled inductors and sometimes, like other types of couples, they struggle to see who's boss.....hi!

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Date: Tue, 30 Mar 1999 10:35:20 -0500
Message-Id: <199903301535.KAA28276@brill.shiva.com>
From: John Shriver <jas@shiva.com>
To: Old Tube Radios <boatanchors@theporch.com>
CC: boatanchors@theporch.com
Subject: Re: Emergency Mil Radios

Yup, 121.5 MHz is the standard ELT frequency for traditional ELT's. The test frequency is 121.25 MHz. That's what you use when testing, experimenting, etc. Modulation is a distinctive warble tone.

But, the new SARSAT satellite based system uses 406 MHz. The ELT has a VERY stable and accurate oscillator. (Crystal oven stability, without a crystal oven, on 4 D cells. Tricky stuff.) There is a mesh of non-geostationary satellites, of which 3 are usually in range anywhere in the world. They measure the Doppler shift of the 406 MHz carrier to figure out where you are. (That's why frequency accuracy and stability is so important.) The SARSAT ELT's also send coded data in the carrier: who, what, etc.

The SARSAT satellites also improve coverage of 121.5 MHz, but can't provide the detailed triangulation data.

One place to start looking is
<http://psbsgi1.nesdis.noaa.gov:8080/SARSAT/homepage.html>.

Date: Tue, 30 Mar 1999 11:13:42 -0500 (EST)
From: Nick England <nick@cs.unc.edu>
Message-Id: <199903301613.LAA21351@altair.cs.unc.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Which is it, HQ-129 speaker or HQ-120 speaker?
Cc: boatanchors@theporch.com

I believe this is an HQ-129 speaker based on a photo in a Hammarlund spec sheet that I have seen. The other old Hammarlund speaker has an array of square holes punched in the metal directly (rather than a "cane metal" mesh). I have seen it advertised with the HQ-140.

I keep a list of boatanchor speakers and matching radios at
<http://www.cs.unc.edu/~nick/speakers.htm>

There are lots of holes in this list and plenty of questions, so please send me additional info, corrections, and photos (and scans of advertisements that might help).

73 & Have Fun,
Nick England KD4CPL nick@cs.unc.edu Univ. Of North Carolina
<http://www.cs.unc.edu/~nick/hobbies.html> Chapel Hill NC

Message-Id: <4.1.19990330130348.00ad28c0@sdct-sunsv1.ncsl.nist.gov>
Date: Tue, 30 Mar 1999 13:07:08 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Roy Morgan <roy.morgan@nist.gov>
Subject: Emergency Mil Radios
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Anchorites,

The thing is called CSEL (Combat Survivor Evader Locator), and information on it and its extended system is at:

<http://www.boeing.com/defense-space/infoelect/csel/>

No, they are not available on the surplus market.

Roy

>To: Old Tube Radios <boatanchors@theporch.com>
>From: "James D. Mayfield" <kb9bnr@revealed.net>
>Subject: Emergency Mil Radios
>Mime-Version: 1.0
>Content-Type: text/plain; charset="us-ascii"
>
>
>Any of you guys have an info on the current survival type radios that the
>USAF boys carry.

Message-Id: <4.1.19990330130907.00ad4eb0@sdct-sunsv1.ncsl.nist.gov>
Date: Tue, 30 Mar 1999 13:10:33 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Roy Morgan <roy.morgan@nist.gov>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The old saying in the Navy was that 121.5 was Air Force common!

Roy

>From: Dan Arney <kn6di@groupone.net>
>To: Old Tube Radios <boatanchors@theporch.com>

>Subject: Re: 121.5

....

>

>

>The old saying in the Air Force was that 121.5 was Navy common!

>Hi

>Hank

Message-Id: <3.0.1.32.19990330132905.00ef5390@vuse.vanderbilt.edu>

Date: Tue, 30 Mar 1999 13:29:05 -0600

To: Old Tube Radios <boatanchors@theporch.com>

From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>

Subject: Measuring sensitivity

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

In a previous post I described my efforts to measure sensitivity. Since then I've read a few descriptions of how others do it. The consensus seems to be to measure the noise without the antenna attached, then attach the generator with modulated signal and adjust for a 10 dB rise.

Thing is, when I attach the generator, even without modulation, I get a noticeable rise in noise when the carrier is present. If I use the noise base measured without the antenna, my sensitivity figures are MUCH better, since I need less signal for a 10 dB rise. However, that does not directly address how well I can hear the modulation, since it is over and above the carrier noise as well.

So what constitutes AM sensitivity? CW sensitivity?

I need some straightening out. My brain is strained, too much heavy lifting here....

A. B. Bonds

Message-ID: <37012968.A33358A6@corn.cso.niu.edu>

Date: Tue, 30 Mar 1999 13:43:36 -0600

From: Steve Berg <z931086@corn.cso.niu.edu>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Scope Question Please

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

When I worked at the NIU College of Engineering, I had several labs full of these Tek scopes. They worked pretty well, and were virtually

indestructible in the hands of students, and those few faculty who knew how to turn on a scope. At one point, I had to replace many of the skirted knobs because they were so badly worn the numbers could no longer be read. Yes, the power supplies were a bear to fix, and I had to send one back that refused to cooperate. Otherwise, I was able to keep most of them going for years.

73,

Steve WA9JML

Message-ID: <37013127.5421532A@corn.cso.niu.edu>
Date: Tue, 30 Mar 1999 14:16:39 -0600
From: Steve Berg <z931086@corn.cso.niu.edu>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: hocus? inrush current limiter (fwd)
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Many of the older transmitters have marginal power transformers. A few of these like the HT-37 and Gonset GSB-100 are almost always bad. The owners of these fine radios are cautioned not to switch the units off and then on quickly since this will blow up the power transformer. Might some sort of inrush limiter help preserve these fragile units?

Steve WA9JML

Date: Tue, 30 Mar 1999 15:42:20 -0500 (EST)
From: John Poulton <jp@cs.unc.edu>
Message-Id: <199903302042.PAA21343@mira.cs.unc.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTD: Info on 3D23 and Supreme AF-100

This is a repeat of an earlier plea: I'm looking for a complete data sheet for the 3D23 (AKA TB-35), a fairly rare transmitting tetrode used in the Supreme AF-100, and manufactured by United Electronics Company and by Lewis Electronics. I *have* the essential characteristics, but not a complete data sheet. If anyone has this info, I'd gratefully pay all expenses for a copy.

My Supreme has unfortunately been modified. Both the HV transformer and modulation transformer have been replaced, and the final is now an 811! I'd like to attempt to put this rig back into original condition, if possible.

Thanks to Brian Harris, I have essentially all of the published information about the Supreme AF-100, but if anyone out there has more info on the peculiar modulation scheme that is used (a combo of plate and screen modulation), any leads on obtaining the original transformers (I know, I know: dream on!), or any other war stories about the Supreme, please let me know.

73

John Poulton KF40ZY

Message-ID: <019001be7b07\$ca8bce20\$831bbfd1@n4fs>
From: "Mike B. Feher" <n4fs@monmouth.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Measuring sensitivity
Date: Tue, 30 Mar 1999 15:48:17 -0800
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

This indeed is tricky, but sounds like you are making the measurements at HF so should be fairly simple. For one thing when you measure noise alone your receiver's antenna input needs to be terminated in its desired impedance, 50, 300 or whatever ohms. Also since you are using small signals, you need to make sure the AGC is off. I wonder what the purpose of your desired measurement is? Are you attempting to improve sensitivity or is it just academic? A simple "A" vs. "B" measurement for minimum discernible signal should convey a lot. 73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell, NJ, 07731
732-901-9193

Message-ID: <3701397E.E7FC4858@acsu.buffalo.edu>
Date: Tue, 30 Mar 1999 15:52:15 -0500
From: John Russo <jprusso@acsu.buffalo.edu>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTB pair 810 tubes
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Gang

Homebrew BA project requires a new or good used pair of 810 tubes. If you have any you are willing to part with please contact me.

Thanks, John Russo KF2JQ

Date: Tue, 30 Mar 1999 18:19:24 -0500
From: Don <71333.144@compuserve.com>
Subject: HBR-16
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199903301822_MC2-6FEA-7C27@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

I had the very good fortune to pick up a nicely-made HBR-16 receiver this weekend. Unlike nearly all the homebrew I have ever seen, this one came with a GREAT set of documentation. In fact, I'm wondering if others on this list might want copies. The HBR-16 project was originally published in QST 10/59. It was a successor to the HBR-14 which appeared in QST 7/57. The author of the 1959 project was Ted Crosby, W6TC.

Well, the builder of this particular HBR 16 took his work very seriously. In fact, he corresponded with W6TC and purchased all the option packages. And the result of all that is what I have. This set includes:

- letters to and from W6TC
- Full-size drilling templates
- full size 11x17 schematic and parts list updated to 6/25/62
- a letter and schematic from W6TC covering an AVC modification dated 6-21-60
- 2 B&W glossy photos of the QST receiver, one signed by W6TC and the piece-de-resistance...
- the complete set (30+ pages) of "HBR Notes" as published by Ed Kent, K8EML

Now I know you're saying "I'd pay almost anything" and you're asking yourself "What incredible riches this must all be worth?" Well, folks, this ain't ebay. Just send me a self-addressed, 8-1/2 x 11 envelope with 2.40 in postage on it and I will ship you out your very own copy of this treasure trove. Please don't just send a check--I don't want the hassle of finding and addressing envelopes. There's no reason to even respond to this e-mail--just send me the SASE.

My address is Don Merz, N3RHT, 47 Hazel Drive, Mt. Lebanon, PA 15228.

73, and a(nother) tip'o cold 807 to those homebrewers of yesteryear,
Don

End of BOATANCHORS Digest 2482
